



# THE IMPORTANCE OF THE EXAMINATION FOR TEAT END CONDITION ON INTENSIVE DAIRY CATTLE FARMS



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## INTRODUCTION

Mastitis is one of the most significant economic damages in cattle breeding. The major causes of mastitis are the infections with pathogenic bacteria, which entered the udder through the teat end canal. The teat end damage might result in the colonisation of pathogenic organisms thus the defence system of the teat canal will weaken. Therefore, one important resistance factor against mastitis is the good condition of the teat end. The degree of teat-end hyperkeratosis (roughness, cornification or callosity) can be a major factor in udder health status. A simplified scoring method (Goldberg et al., 1994) is commonly used for the routine evaluation of teat conditions such as teat hyperkeratosis. However, the use of the method is not widespread on the dairy cattle farms in the practice. The aim of the study is to find the causes of these problems, why they do not pay enough attention to the teat-end condition.

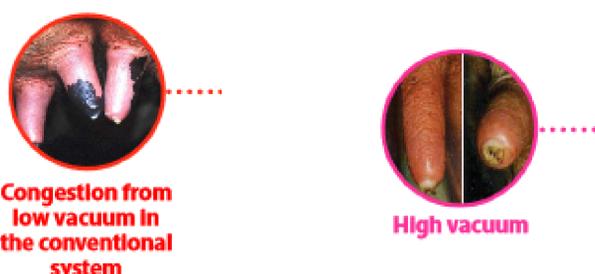
## MATERIALS AND METHODS

Data were collected at pilot farm of University of Szeged Faculty of Agriculture. In August 2016, Surepulse system („A”) inserts were installed equipped with pulsation adjustments. On March 2017 Calf 35 system („B”) was installed. During this period comprehensive data were collected for teat scores and SCC. The aim of the study was to examine the impact of Surepulse inserts and Calf 35 system on SCC and milk yield.

Score	Description	Illustration
N	<b>No ring</b> The teat-end is smooth with a small, even orifice.  This is a typical status for many teats soon after the start of lactation	
S	<b>Smooth or Slightly rough ring</b> A raised ring encircles the orifice. The surface of the ring is smooth or it may feel slightly rough but no fronds of old keratin are evident.	
R	<b>Rough ring</b> A raised, roughened ring with isolated fronds or mounds of old keratin extending 1-3 mm from the orifice.	
VR	<b>Very Rough ring</b> A raised ring with rough fronds or mounds of old keratin extending 4 mm or more from the orifice. The rim of the ring is rough and cracked, often giving the teat-end a "flowered" appearance.	

Picture 1 Teat end hyperkeratosis scoring system

## RESULTS AND DISCUSSION



Picture 2 The effect of different vacuum level on teat end condition

Table 1.: Descriptive statistics of test day records including milk yield, SCC and SCC log associated with System A and B

		N	Mean	Std. Deviation	Minimum	Maximum
Milk Yield (kg)	System A	601	29.66	9.3	5.6	56.2
	System B	427	29.64	9.6	5.4	56.4
SCC (1000xcells/ml)	System A	601	285	647	0	6304
	System B	427	211	718	0	9995
SCC <sub>log</sub>	System A	601	5.11	0.58	3.48	6.80
	System B	427	4.91	0.59	3.60	7.00

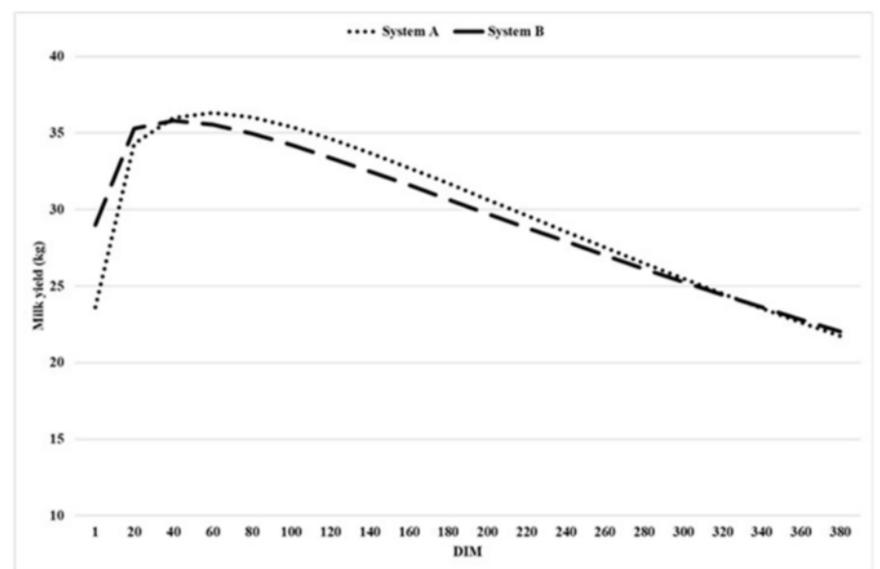


Fig 1 Lactation curve of the milked cows of the two system

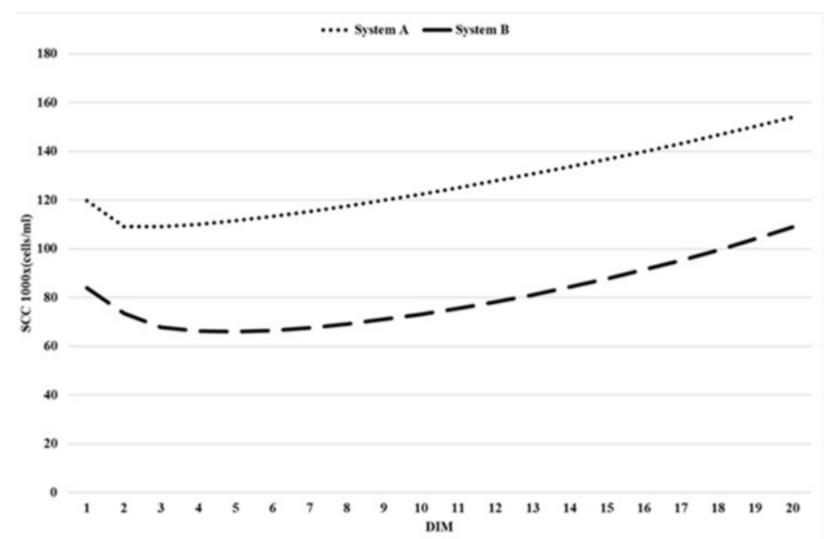


Fig 2 SCC curve of the milked cows of the two systems

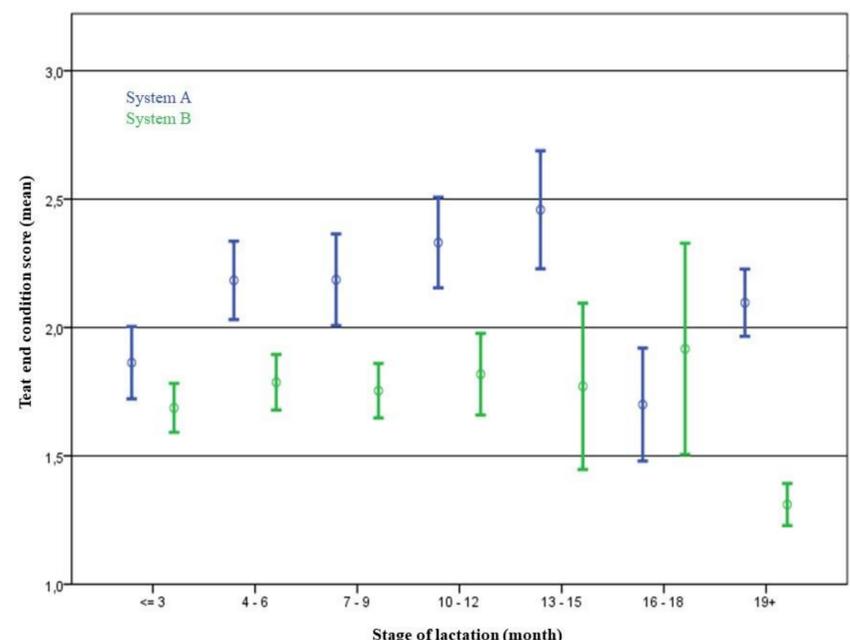


Fig 3 The effect of days on milking on teat end condition